DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018174 Address: 333 Burma Road **Date Inspected:** 11-Nov-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Xu Xian Ping No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this date Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector, D.Sukanthan was present during the time noted above for observations relative to the work being performed.

OBG # Crossbeam CB18

This QA inspector received ZPMC Non Destructive Testing (NDT) notification 07308 to perform Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control Personnel. This QA Inspector generated a Ultrasonic Test report for this date. The member is identified as CB 18 Bottom Panel. The weld tested is identified as follows:

(CB3002C-018-002,004)

This QA Inspector randomly observed the following work in progress:

OBG # Crossbeam CB18

This QA observed ZPMC qualified welding personnel identified as 054467 perform Shielded Metal Arc Welding (SMAW) Process on weld joint CB3002A-018-002. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng zhi wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2214-TC-U4b.

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This QA observed ZPMC qualified welding personnel identified as 048659 perform Shielded Metal Arc Welding (SMAW) Process on weld joint CB3002A-018-002. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng zhi wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2214-TC-U4b.

This QA observed ZPMC qualified welding personnel identified as 049769 perform Shielded Metal Arc Welding (SMAW) Process on weld joint CB3002A-018-002. ZPMC Quality Control Personnel (QC) identified as Mr. Zheng zhi wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2214-TC-U4b.

OBG # Crossbeam CB19

This QA observed ZPMC qualified welding personnel identified as 217185 perform Flux Cored Arc Welding (FCAW) Process on weld joint DP3179-001-039. ZPMC Quality Control Personnel (QC) identified as Mr. Huang Min was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 204342 perform Flux Cored Arc Welding (FCAW) Process on weld joint DP3182-001-010. ZPMC Quality Control Personnel (QC) identified as Mr. Huang Min was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

OBG # BAY 8

During the Caltrans Quality Assurance in-process observations of the fabrication of Bike Path, this Quality Assurance Inspector (QA) discovered the following issues. The Bottom Cover Plate (BKPL4B) is welded on the wrong location. According to the shop drawings BK4E, the bottom plate shall be welded 20mm below the Side Plate BKPL3B. The height of the side plate was measured approximately 14mm in 1000mm of length starting from Bottom Cover Diaphragm BKPL6A. CT QA Inspector previously observed ZPMC personnel used a steel backing bar at the same location. Reference NCR#ZPMC-0846 for additional information. The affected weld is BK4A2-054-021 joining bottom cover plate BKPL4B to the side plate BKPL3B. The Bike Paths is identified as BK004A-054. This QA notified ZPMC QC identified as Mr. Lui fa wen of this issue and that an incident report would be generated. For further information, please see the attached pictures below.

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Summary of Conversations:

As mention above

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-00422372, who represents the Office of Structural Materials for your project.

Inspected By:	Sukanthan, Dhanasingh	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer